REMARKS

Pending Claims

Claim 33 has been amended. New claims 49-56 have been added. Claim 41 has been canceled without prejudice or disclaimer. Claims 1-32, 34-40 and 42-48 were canceled by prior amendments. Accordingly, claims 33 and 49-56 are pending. There are now one independent claim and nine total claims pending.

35 U.S.C. §101

Claim 41 stands rejected under 35 U.S.C. §101 as being directed to a non-statutory subject matter. Applicant has canceled claim 41 without prejudice or disclaimer and, accordingly, the rejection is now moot.

Support for Claim Amendments

The amendments to claim 33 find support, for example at FIG. 4, which illustrates replication control information, which is information used to join data of a plurality of master tables so as to control replication of data into one replica table (see also, e.g., Applicant's specification at page 10, line 23, through page 13, line 13), and FIG. 2, which illustrates storing, as operation information, a requested data operation (see also, e.g., Applicant's specification at page 6, line 15, through page 7, line 24). The new dependent claims 49-56 find support, for example, at FIG. 3 and page 7, line 25, through page 10, line 15 of Applicant's specification.

35 U.S.C. §102

Claims 33 and 41 stand rejected under 35 USC 102(e) as being anticipated by Souder et al., US Pat. No. 6,532,479 (hereafter "Souder"). Applicant respectfully traverses these rejections, and requests reconsideration and withdrawal of the rejections for the following reasons.

Applicant's Claim 1, as amended, includes

> ...storing, as replication control information, a plurality of names of master tables of the master databases, a name of the replica database generated from said plurality of master databases by join operations based on predetermined joining keys, joining keys used in said join operations, and timing conditions setting timings at which replications of data are performed to the replica database from the master tables to correlate with each other;
>
> in response to reception of a request for a data operation to a record stored in a first one of said master databases, storing as operation information the requested data operation to correlate identification information of an operated record with the master table name of the first master database on which the data operation request has been performed;
>
> determining whether a processing result of the data operation request meets the timing conditions;
>
> when the timing conditions are met, acquiring the master table name of the first master database on which said data operation request has been operated, one of said stored joining keys corresponding to said timing conditions, a second master table name of a second master database, and the replica database name to be joined by the joining key from the replication control information;
>
> ...performing a joining processing with respect to said record subject to the data operation and said second master database to be joined

> using said joining key, by referring to the replication control information...(emphasis added).

According to this aspect of Applicant's invention, replication control information is stored that includes timing conditions that set timings at which replications of data are performed to the replica database from the master tables so as to correlate the replica database with the master tables. When a data operation is carried out on a record stored in one of the master databases, the data operation is stored as operation information, and the method determines whether a processing result of the data operation meets the timing conditions. When the timing conditions are met, joining processing is carried out with respect to the record subject to the data operation and the second master database using the joining key by referring to the replication control information previously stored. Thus, according to this aspect, when predetermined timing conditions are met by a data operation carried out on a record in a first master database (e.g., data deletion, insertion etc.), a replication definition in which a joining condition on the record on which the operation information is stored is referred to, and thereby joined with the second master database, so as to perform the replication and reflecting to a record in the replica database based on the data operation request.

Souder, on the other hand, fails to teach or suggest replication control information that includes timing conditions, or the storing of a data operation as operation information, as recited in Applicant's claim 33. As a result, Souder is

unable to restrict or focus a data operation to a particular record that is subject to the data operation.

On page 7 of the Office Action, it is asserted that Souder teaches at FIG. 2 that the master site 200 comprises joined data from client sites 220 and 240. However, while the joined data in the relational database 204 may be data replicated from the client sites, the joining is carried out according to data operations on all of the data records in the respective databases, thus making it impossible for Souder to update only one of the stored data records subject to a data operation, unlike Applicant's invention, as set forth in claim 33.

For example, Souder at column 5, lines 58-60, discloses that in response to the refresh request, the master site reconciles the differences between the master tables and the client snapshots, and transmits the differences to the client site. However, nowhere does Souder teach or suggest how to update a replica database when a record of one of the master databases used to create the replica database is subject to a data operation. Therefore, Souder does not teach or suggest that, in response to reception of a request for a data operation to a record stored in a first one of the master databases, the data operation is stored as operation information to correlate identification information of a record with the master table name of the first master database on which the data operation request has been performed and, when the timing conditions are met, and a joining processing is performed with respect to the record subject to the data operation and the second master database,

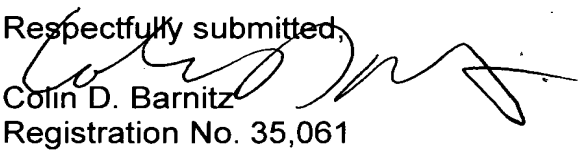
as recited in Applicant's amended claim 33. Accordingly, Applicant respectfully submits that claim 33 is allowable over Souder and the other art of record, whether taken singly, or in combination.

The new dependent claims 49-56 set forth additional steps that are carried out when the timing conditions are met. For example, replication is performed using timing conditions in which a time for performing the replication is set according to the timing conditions. The timing conditions for carrying out replication are also set forth further in each of the new dependent claims. The additional limitations of the new dependent claims are neither taught, nor suggested by Souder and/or the other art of record, whether taken singly, or in combination. Thus, Applicant respectfully submits that the new claims 49-56 are also allowable.

Conclusion

In view of the foregoing, Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,



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